Distributed Pyro Initiation System

Completed Technology Project (2012 - 2013)

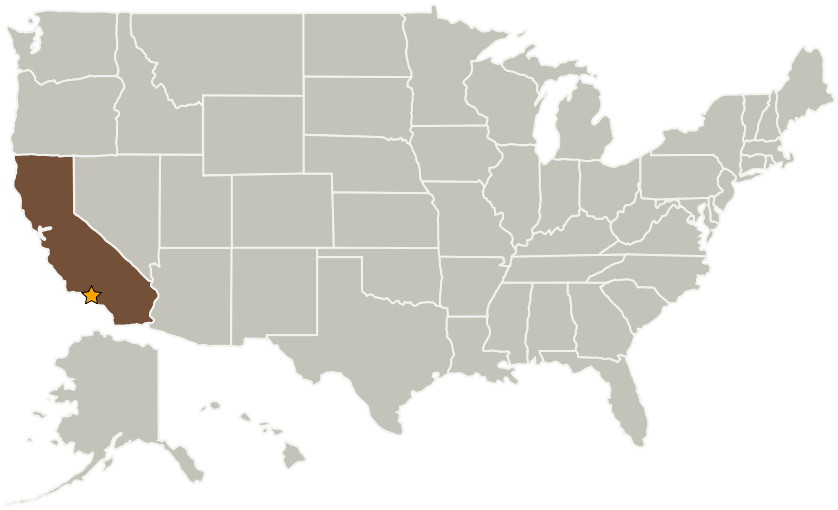
Project Introduction

Evaluate Current State of the Art; Define Critical Performance Requirements; Select Components; Smart Initiator or Smart Connector; Perform Detailed Cost/Benefit Analysis; Develop System Architecture; Build Prototype System; Qualify Prototype System to TRL 6; Develop Full Qualification Plan for implementation on JPL Flight Project.

Anticipated Benefits

We propose to replace the existing massive cable system with a simpler and much lighter "bussed" system significantly reducing cable mass and complexity. This can be used for a large range of NASA missions improving reliability and reducing mass.

Primary U.S. Work Locations and Key Partners



Organizations Performing Work	Role	Type	Location
★Jet Propulsion Laboratory(JPL)	Lead Organization	NASA Center	Pasadena, California

Primary U.S. Work Locations
California

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Organizational Responsibility

Responsible Mission Directorate:

Space Technology Mission Directorate (STMD)

Lead Center / Facility:

Jet Propulsion Laboratory (JPL)

Responsible Program:

Center Innovation Fund: JPL CIF

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Project Management

Program Director:
Michael R Lapointe

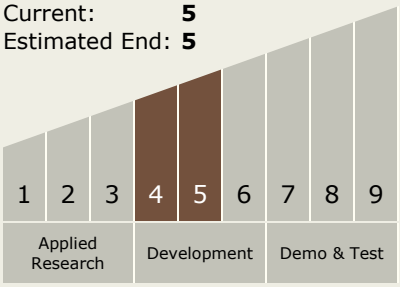
Program Manager:
Fred Y Hadaegh

Project Manager:
Jonas Zmuidzinas

Principal Investigator:
Richard G Webster

Technology Maturity (TRL)

Start: **4**
Current: **5**
Estimated End: **5**



Technology Areas

Primary:

- TX07 Exploration Destination Systems
  - TX07.1 In-Situ Resource Utilization
    - TX07.1.3 Resource Processing for Production of Mission Consumables